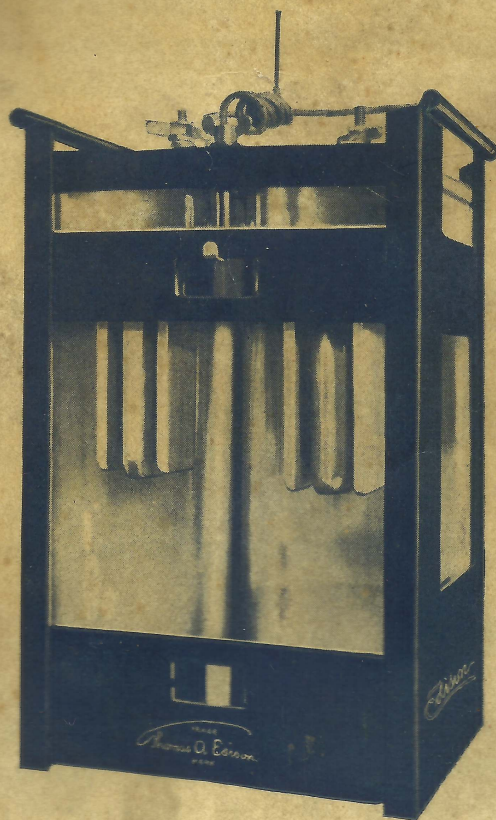


INSTRUCTIONS for
Setting Up and Using

The Edison Radio Primary Battery



THOMAS A. EDISON, INC.
Primary Battery Division
BLOOMFIELD, N. J.



Read These Instructions Through Before Starting and Then Follow the Rules Carefully

This Will Insure Maximum Results

As you receive this battery, it will consist of a steel tray in which are placed two glass jars having porcelain covers, to which are attached the active elements of the battery.

The covers are clamped down by means of two angle irons and screws. In addition you will find two cans containing the soda which is to be dissolved in water to form the solutions for the two jars. There will also be found two bottles of oil, one of which is to be emptied into each jar after the solution has been prepared, as explained below.

To Set Up the Battery

1.

Take off the clamps which hold the covers, lift the covers and elements out and set them aside.

2.

Fill the jars about three-quarters full of clean water.

3.

Open one of the cans of soda (see caution below) and pour the contents of the can slowly into one of the jars, stirring the liquid at the same time with a thin stick or iron spoon, until it has been completely dissolved. Then dissolve the contents of the second can in the other jar. Be sure to use all of the soda from each can in each jar and be sure it is all dissolved.

CAUTION—The powder and also the liquid will burn the skin or clothing if spilled on them, so be careful while mixing the solutions. If you do spill some on the hands, wash it off

immediately with plenty of water and no harm will result. If you should spill some on the clothing, apply some vinegar and then wash it out with water.

4.

The newly mixed solution will be hot. Let it stand until cool.

5.

When the solution is cool, replace the cover and elements in the jars, making sure that the rubber gaskets have not been displaced. **DO NOT INSERT THE ELEMENTS UNTIL THE LIQUID HAS COOLED.**

6.

Now add clean water to each jar until the solution is five-eighths inch FROM THE TOP OF THE JARS. IT IS IMPORTANT TO HAVE THE LIQUID AT THE RIGHT HEIGHT.

7.

Open the two bottles of oil and pour the contents of one bottle into each jar, by tipping the covers just enough to insert the neck of the bottle.

8.

Now clamp the covers down, being careful to have the rubber gaskets in their proper places on the under side of the covers.

9.

The two cells should now be connected in series. To do this, connect the long lead wire of one cell to the binding post in the center of the other cell. In connecting the battery to the radio set, use heavy wire, not smaller than No. 14 copper and no longer than four feet. Smaller or longer leads will waste current. If the set has been constructed by an amateur, be sure that the leads connecting one tube socket to another are also No. 14 copper.

10.

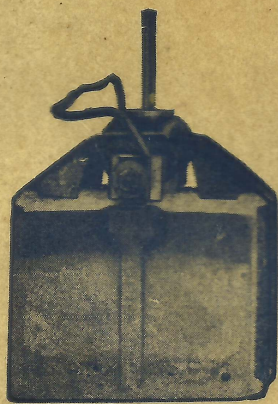
When all connections are completed, light the tubes dimly and keep them lighted for the first twenty-four hours. This twenty-four hour discharge period serves to put the active elements of the battery in good operating condition. During this period the set may be used, if desired, and when not in use the filaments may be dimmed again.

After the twenty-four hour initial discharge, the battery will require no attention of any kind during the life of the element.

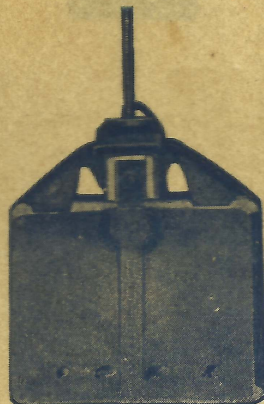
Indication of Approaching Exhaustion

In the lower portion of the zinc plates you will find small panels pressed into the zinc. These panels are designed to show you when the cell is nearing exhaustion.

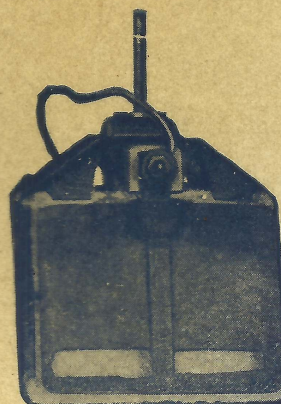
As the battery is used this zinc is gradually absorbed by the solution and when the battery is about 75% exhausted, small perforations will be noticed in these panels, as shown in the cut. When these panels are completely eaten away, the element is exhausted.



Showing element 75% exhausted



Showing element nearing complete exhaustion



Showing element completely exhausted

Remember These Hints on the Care of Your Battery

Use the entire contents of each can of soda in each jar.

Use clean water.

Watch the spacing between plates. The plates should hang in a vertical position, parallel to each other, and about $\frac{3}{8}$ " apart.

Keep the level of the solution to within $\frac{5}{8}$ " of the top of the jar. This is IMPORTANT.

The first perforations of the indicator panels mean that the battery is 75% exhausted.

When the panels have disappeared the elements and solutions should be replaced.

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